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The “losers of automation”: A reservoir of votes for the radical right?

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Abstract

This paper studies the association between the risk of automation and vote choice in 11 West European countries. We extend upon labour economics literature on the effects of automation on the labour market by focusing on the political consequences of automation. We also build on existing work relating labour market risks to support for radical right parties. We argue that automation threat is most likely to increase support for radical right parties. We demonstrate that those more inclined to vote for the radical right rather than the average voters are those who are both threatened by automation and are still “just about managing” economically. They are more receptive to the narrative of the radical right, which simultaneously highlights the risk, and proposes protection. Using cross-sectional individual level data drawn from the European Social Survey (rounds 6, 7 and 8), we find that individuals who perceive themselves as “coping on present income” are significantly more likely to vote for radical right parties as risk of automation increases. They are also less likely to vote for major right parties.

Keywords

Automation, labour markets, electoral behaviour, radical right

Introduction

In 1921, a theatre play “RUR” by Karel Čapek decried the dehumanizing nature of labour routinization, painting a dystopian world in which humans are replaced by machines. He underlined the perils of modernization devoid of compassion and humility, a peril that he would later associate with the rise of authoritarianism. While the play has largely receded from memory, one word it coined has permeated most world languages – the robot. Derived from the Czech noun “robota”, designating “forced labour” or *corvée*, the robot replaces humans in all but their empathy, tenderness, mercy and love.

Recent years have witnessed an increased focus on the role of labour automation, whereby robots, computers or machines replace human workers. While there is an ongoing debate about the extent to which the rise of automation will displace human jobs (Arntz et al., 2016; Arntz et al., 2017; Autor and Dorn, 2013; Frey and Osborne, 2017; Goos and Manning, 2007), the understanding that diverse occupations are at varying levels of risk of automation is pervasive in academic, as well as popular discourse. However, the question that remains unaddressed is how such risk translates into political behaviour.

This paper consequently proposes to address the electoral impact of automation in the economy. Our guiding hypothesis

is that individuals threatened by automation are a potential reservoir of voters for European populist radical right parties (Camus and Lebourg, 2017; Mudde, 2007). These parties have been taking the side of workers threatened by globalization and unfettered capitalism; they have also started to play on the threat of automation (Mulot, 2017). The potential “losers of automation” could turn to them, as the “losers of globalization” did before (Kriesi et al., 2008).

Electoral impact of automation

Our argument builds on earlier work that distinguishes between subjective and objective labour market threats (see, e.g., Kurer, 2018; Mayer, 2013, 2015; Rovny and

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Rovny, 2017). These works demonstrate that it is not those objectively worse-off who lend the highest levels of support to the radical right. Rather, it is those who are above the threshold of precariousness or poverty, but perceive the risk of falling down into it.

In France, for instance, since the 1990s, blue-collar workers are the most inclined to vote for the Front National (Gougou and Mayer, 2012): 29% voted for Marine Le Pen in the 2012 presidential election, 10 points above her average score (Mayer, 2015). However, the proportion was higher among socially secure workers than among socially insecure ones: 35% compared to 20%.¹ These workers who turned proportionately more to the radical right were on the “lower-middle” income and status scales or “little middle” (Cartier et al., 2016). Most importantly, they were also those who had something to lose and feared downward mobility (Mayer, 2015).

A similar result was found by Kriesi and Bornschie (2012). Using the post-industrial class schema of Oesch (2006, 2008), the authors found that the economically worse-off do not support the radical right more than average; instead, they abstain more than average. The typical radical right voter has “an intermediate level of education, belongs to the manual working class and is not disinterested in politics and her/his reasons are cultural” (Kriesi and Bornschie, 2012: 26). Immigration is perceived as a threat to their identity. Using panel data on Germany, Switzerland and the UK, which runs from the 1990s to 2014, Kurer (2018) shows that it is fear of social decline by job loss, rather than actual experience of it, which drives support for right-wing populist parties.

Our expectation is that labour automation represents another form of labour market risk. It, however, expands beyond the manual working class and affects “middling” white-collar jobs as well (Autor et al., 2003; Goos and Manning, 2007; Frey and Osborne, 2017). Individuals are likely to perceive the general risk of unemployment that they are exposed to. This risk is made up of a number of components, of which automation is one. One’s employment may be threatened by various mechanisms, such as: globalization (jobs going abroad), migration (replacement by cheaper workers), consumer preference change (demand disappearance), “rationalization” (reduction of workers to increase profit), automation (replacement of workers with machines), etc. In short, the threat of automation is but one particular component of general unemployment risk.² We isolate this risk and assess its impact on political behaviour.

Why should those threatened by automation turn to the radical right? The radical right is well placed to respond to this form of risk due to its programmatic focus on the displacement of native jobs by exogenous changes to the labour market, which include globalization, migration and automation. Radical right parties are currently not only the most electorally dynamic in Europe, but also the only

non-mainstream parties to have put forward the issue of automation risk.³ Furthermore, and contrary to the radical left, which has often defended progress, including technological progress, radical right parties propose a narrative that is resolutely nostalgic of a mythic past (Gest et al., 2017; Steenvoorden and Harteveld, 2018).

We propose a dual mechanism. First, on the demand side, individuals carrying out routine job tasks that lend themselves to automation are more likely to sense the threat of potential downward mobility and thus respond by supporting the radical right.

Hypothesis 1 (H1): Individuals more threatened by automation are more likely to vote for the radical right.

Second, we expect this sense of threat to be moderated by individuals’ current perceived economic situation. Threat is a more potent political driver when the danger is unknown. It is in this situation when individuals are still managing economically, but fear a loss of economic status, that they become more receptive to the radical right, whose appeals play heavily on the notion of threats and the “protection” against such threats. Building on the literature on social threats discussed above, as well as social mobility (Jackman and Volpert, 1996; Peugny, 2006), we expect individuals who are just economically coping to be most likely to respond to the threat of automation; they are most likely to fear a loss of status, which triggers greater likelihood of supporting the radical right (Rovny and Rovny, 2017). This is confirmed by a recent study by Frey et al. (2017), showing that “automation anxiety” led to the support of Donald Trump in the 2016 presidential election, and by Dal Bó et al. (2018) on the appeal of the Swedish Democrats to “vulnerable insiders”. By contrast, individuals who perceive themselves as already in economic difficulty are less likely to respond to the threat of automation by supporting the radical right.

Hypothesis 2 (H2): Automation threat increases the propensity to vote for the radical right among those individuals who perceive their economic situation as middling.

We thus expect individuals who perceive themselves as standing just at the edge of the economic precipice to react most strongly to the threat of automation. They are thus significantly more likely to turn to the radical right. The response of these in the lower-middle positions is to turn against modernization presented by automation, and in the words of the Communist Manifesto, to “try to roll back the wheel of history” (Marx and Engels 2001: 23), which is offered by some radical right’s recent programmatic calls for a hark back to the “good old times” (Mondon, 2016: 29).

Data operationalization

To test our expectations, we use data from rounds 6, 7 and 8 of the European Social Survey (ESS). ESS rounds 1 to 5 were excluded from this study because a different occupational classification category is used in these rounds. As we do not have the ability to assess individual perception of automation risk, we rely on an “objective” measure of this risk provided by Arntz et al. (2016), which we assume is diffusely sensed by individuals. We then seek to assess the electoral impact of the narrower component of unemployment risk caused by the threat of automation.

Our dependent variable is voting behaviour in the previous national election. This variable measures five different voting behaviours: (a) vote for radical right; (b) vote for radical left; (c) vote for major left; (d) vote for major right parties; and (e) abstain. The variables are recoded from the variable “*party voted for in last election*”. This classification broadly follows Rovny and Rovny’s (2017) approach (see Table 10 in the online appendix). To construct the category “did not vote”, we used a variable asking whether respondents had voted in the previous national election.

Our key independent variable is the Arntz et al. (2016) index, which measures the risk of automation at the occupational level. It is a continuous variable ranging from 0 to 1, with higher values denoting greater risk. The index is based on the two-digit level of the International Standard Classification of Occupations (ISCO) 2008 system. While ESS rounds 6, 7 and 8 used ISCO-08, rounds 1 to 5 use the older ISCO-88 system, which is why we exclude the latter. We prefer this index to the Frey and Osborne (2017) measure, since the latter is based only on US data, and assumes that all jobs in the same occupation group face the same risk of automation, whereas the Arntz et al. (2016) data concern European countries, and differentiate between risk of automation within occupations and across countries (for a discussion of the differences between the two measures, see online Appendix A11). Like the alternative Frey and Osborne (2017) index, both measure the likelihood of automation at the task level. This follows the recent task-based approach in labour economics literature, which defines tasks as “a unit of work activity that produces output” (Autor, 2013). A job is thus a composite of the different types of tasks a worker does (Owen and Johnston, 2017), and occupations are an aggregate of different jobs with potentially different task structures.

Arntz et al. (2016) use individual-level survey data from the Programme for the International Assessment of Adult Competencies (PIAAC), which measures a comprehensive list of self-reported tasks that people actually perform in their workplace (Arntz et al. 2016: 12), comparable across countries. Individuals are first assigned an automatability value primarily according to the set of tasks they perform, and secondarily according to gender, education, competences, income, firm-size and sector. Since PIAAC contains

individual occupational categories at the ISCO two-digit level, the overall risk of automation for each occupational category reflects its share of workers with a high automation potential. Since this method measures risk of automation at the individual level, differences in task structures across countries are accounted for. They show that similar occupational categories in different countries face different risks of automation.

The ESS data does not, however, allow us to go beyond the level of occupational groups and account for variations of risks of automation within similar occupational groups due to differences in individual job task structures. This may be a limitation of this study since both Autor and Handel (2013) and Arntz et al. (2016) have noted the possibility of variations in risks of automation within similar occupational groups.

The moderating variable proposed by H2 measures respondent feeling of economic security based on their present household income (*hincfel*). Respondents place themselves into one of four categories: (a) living comfortably on present income; (b) coping on present income; (c) difficult on present income; and (d) very difficult on present income.

To further strengthen our claims and eliminate the possibility that our results could be driven by confounding factors, our statistical analyses control for age, gender, level of education, religiosity, union membership, if one belongs to an ethnic minority group and income. We also use country and year fixed effects in our model to account for country and time idiosyncrasies.

Our sample includes the following West European countries: Austria, Belgium, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Sweden and the UK. We chose countries according to two criteria: (a) these countries are included in the Arntz et al. (2016) risk of automation index; and (b) these countries have radical right parties with significant electoral success.

We employ multinomial logit regression models to test for the effects of the risk of automation on voting behaviour. Note that the voting for radical right parties is the specified base outcome in the regression model. To test if the effects of risk of automation on voting behaviour differ across levels of economic security, we include an interaction term comprising risk of automation and feeling of economic security based on present income. The models use design weights supplied by ESS and standard errors are clustered by countries.

Results and discussion

Turning to test H1, positing an effect of automation risk on the vote for the radical right, Figure 1 presents the relationship between vote probability and risk of automation. A rise in risk of automation is positively associated with an increase in likelihood of voting for radical right parties. As

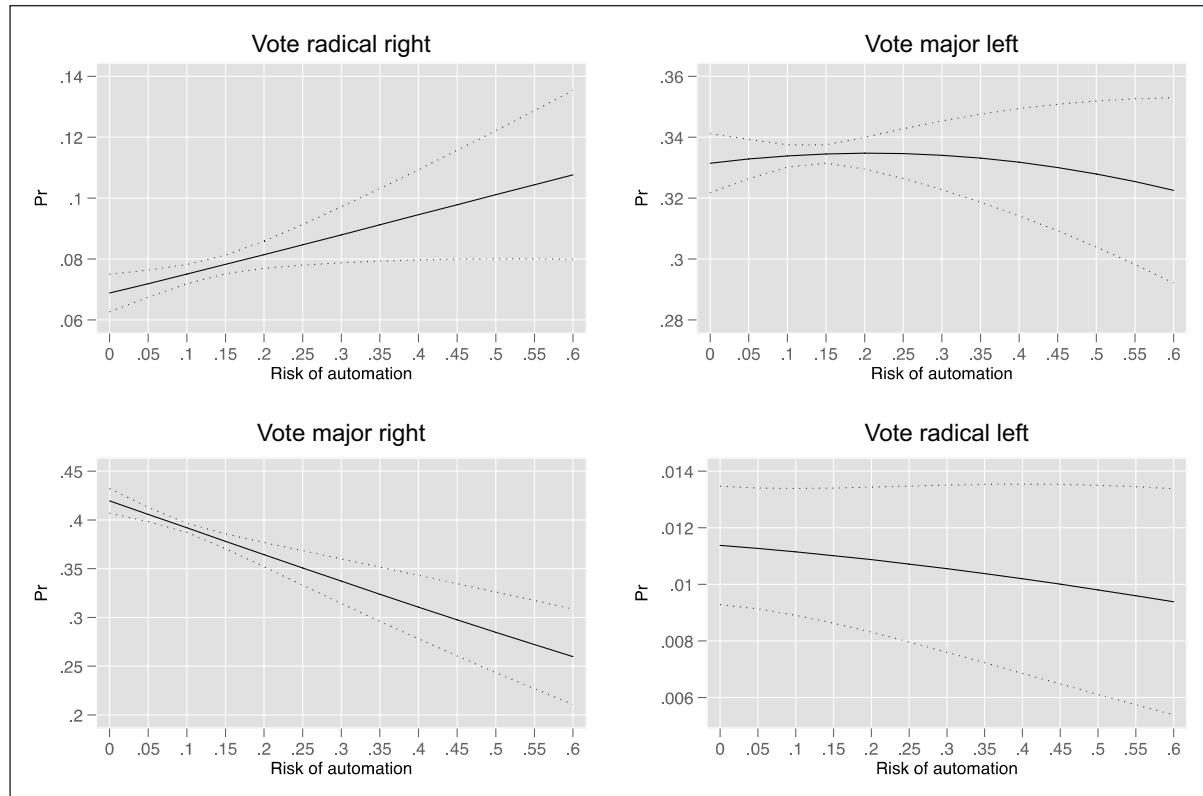


Figure 1. Predicted probabilities of vote choice as automation changes with 95% confidence intervals.

Note: linear relationship between automation and vote choice. Based on Table 1 in the online appendix.

the risk of automation rises from 0 to 0.6, there is a 3.92 percentage points associated increase in probability of voting for radical right parties. By contrast, an equal increase in risk of automation is associated with a 16 percentage points decrease in likelihood of voting for major right parties. There is no significant effect on the vote for major and radical left parties.

H2 expects the risk of automation to impact support for radical right parties differently across levels of income security. Figure 2 shows that rise in risk of automation is significantly associated with an increase in the probability of voting for radical right parties for respondents who are living comfortably on present income, and particularly for those who are coping. Furthermore, all income groups demonstrate a reduced support for the major right as automation risk increases. Finally, those in very difficult income conditions are significantly less likely to vote for the major left, as the risk of automation increases. There is no effect on vote for the radical left.

Figure 3 further illustrates the vote probabilities over automation risk and across feeling of income security. It shows that respondents who are coping and living comfortably on present income are more likely to vote for radical right parties as risk of automation increases. This positive relationship is, however, slightly stronger for those who are coping on present income. By contrast, rising levels of risk

of automation are associated with a fall in likelihood of supporting radical right parties among those who find it difficult and very difficult on present income, though these effects are not statistically significant.

Figure 3 also shows that there is a negative relationship between risk of automation and support for major right parties for all levels of income security. Importantly, the risk of automation dramatically decreases the support for major left parties among those who find it very difficult to cope on their current income. These individuals are then most likely to abstain, or (a small portion of them) turn to the radical left, although the effect on radical left vote is not significant.

The results suggest two important findings. Automation interacts with individual economic situation and compounds the effect on electoral behaviour. Those individuals coping on current income are generally significantly affected by increasing threat of automation, which drives them towards the radical right. This effect is, however, not observed for those who already find it difficult or very difficult to live on their current income – as automation risk increases, they are not significantly more likely to vote for the radical right.

These results are consistent with previous findings that individuals who are facing worse economic difficulties *do not* tend to support radical right parties more than

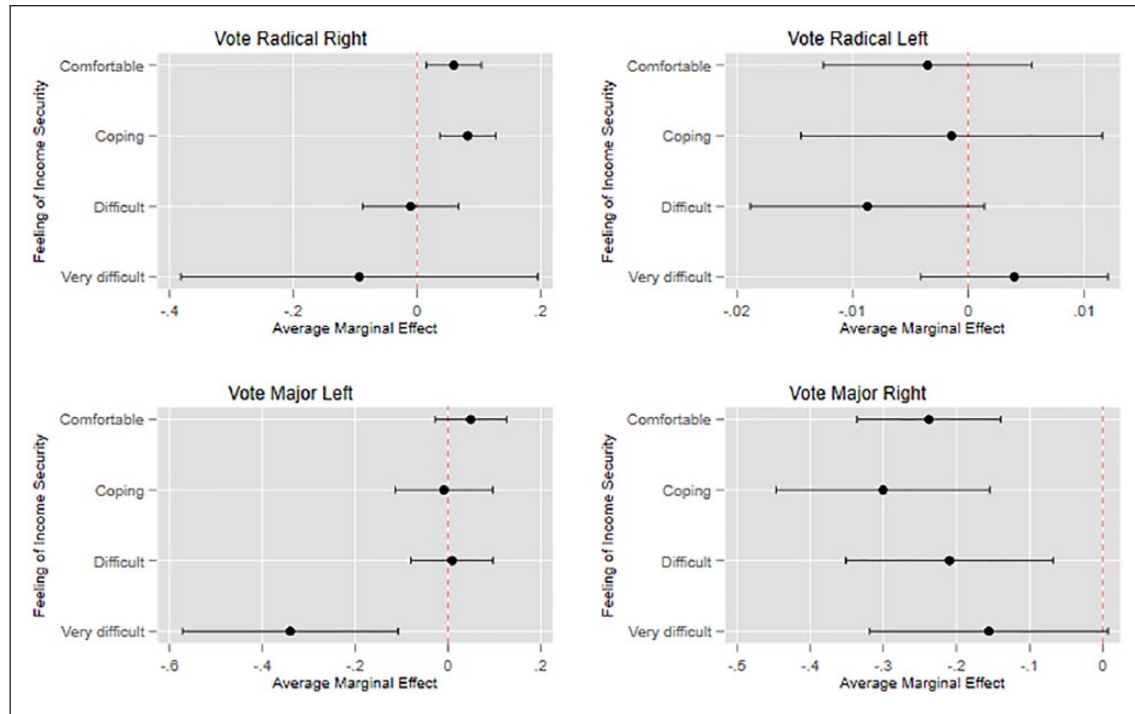


Figure 2. Average marginal effects of risk of automation on vote choice by feeling of income security.

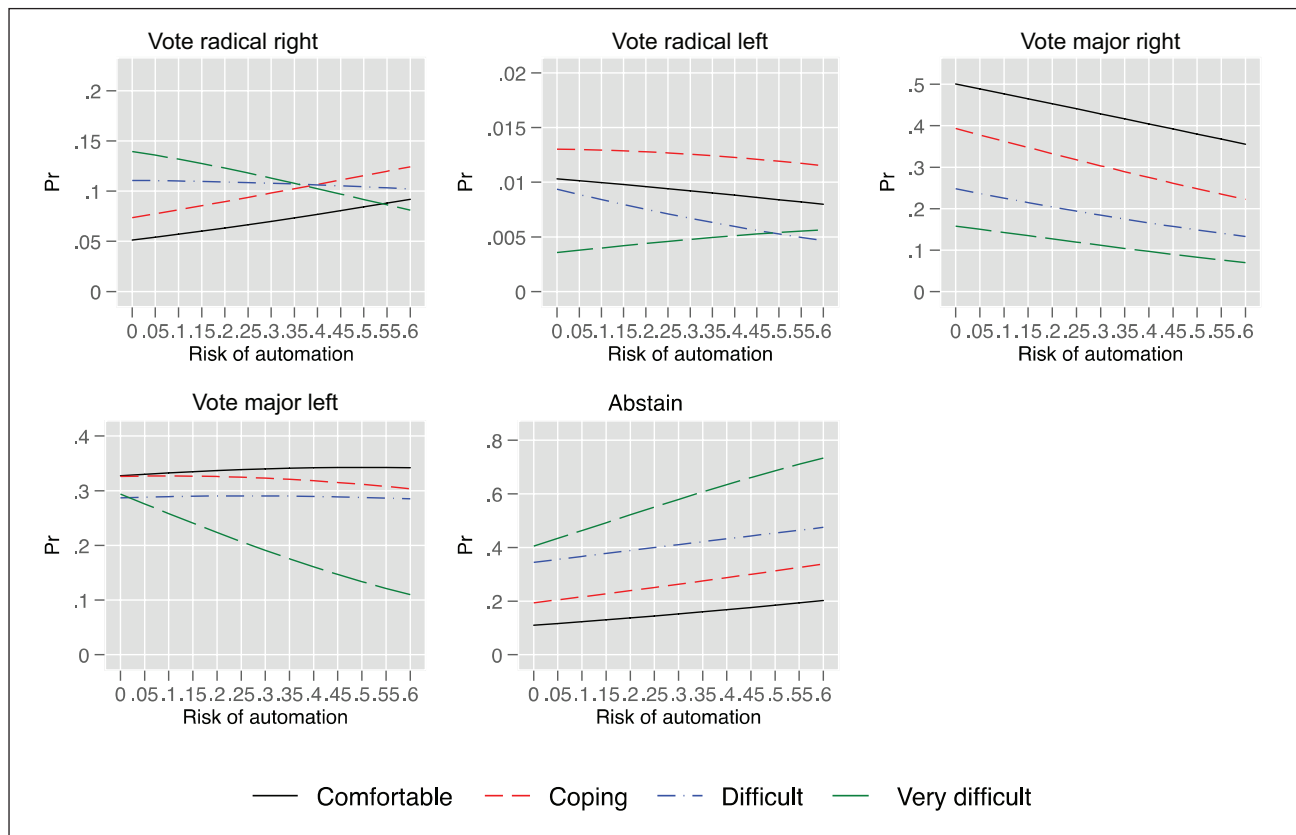


Figure 3. Predicted probabilities of vote choice over risk of automation by feeling of income security.
Note: Confidence intervals were suppressed for readability.

average (Mayer, 2015; Mayer et al., 2015; Rovny and Rovny, 2017). It is primarily those individuals who are doing just about fine, but who face threats – such as the threat of losing their work to machines or robots – who are more likely to turn to the radical right. Thus, while actual economic hardship leads voters to turn away from the polls, the fear of slipping into economic difficulty leads voters into the arms of the radical right.

Conclusion

This study examines the political consequences of automation risk. As automation is increasingly able to replace a greater number of human tasks, some workers face a greater risk of redundancy than others. We thus asked whether those facing high risk of automation are a potential reservoir of votes for radical right parties. Our findings suggest that risk of automation alone cannot fully explain support for radical right parties. Rather, it is the risk of automation among those who are just economically coping, but likely to be fearful of falling and losing what they have, which may motivate the vote for radical right parties (Rouban, 2016a, 2016b).

One major limitation of this research pertains to differences in risk of automation within similar occupational groups. Due to limitations in the ESS data, we are only able to estimate individuals' risk of automation at the level of occupational categories: individuals in the same occupational categories were assigned similar risks of automation. Since individuals in similar occupations may take on different jobs comprising different task structures, future studies could estimate the risk of automation at the individual level and relate individual-level risk to voting behaviour.

This comparative study ultimately suggests that automation creates socio-structural conditions that may inform individual political orientations, and become a basis for new social grouping and political organization. Indeed, some political entrepreneurs – particularly from radical right parties – are starting to advance the issue. This is echoed in recent comments by Marine Le Pen, the leader of the French radical right, in an interview in 2017 that “the robotization of work engenders many legitimate fears, as it could replace many unqualified workers” (Mulot, 2017). The threat of robots, conjured up almost a century ago by a humanist writer, may have the potential of becoming strategic electoral fodder for Europe's radical right.

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Supplemental materials

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Notes

1. According to scores on an indicator of social precariousness mixing social isolation and economic situation items, the “EPICES” score (see Mayer, 2014).
2. Indeed, if we compare our measure of automation risk with a measure of unemployment risk (Rehm, 2016), we conclude that these two measures correlate at $r = 0.599$, and automation risk explains 36% of the variance of unemployment risk.
3. See recent declarations by the leaders of the Freedom Party in the Netherlands (Champion and Van Der Schoot, 2017) and the Rassemblement National in France (Mulot, 2017).

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